UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TENNESSEE AT KNOXVILLE

ESTATE OF DUSTIN BARNWELL, by next of kin, S. C. B., a minor, b/n/f, **SHASTA LASHAY GILMORE**,	)	
Plaintiff,	)	
v.	)	No.: 3:13-CV-124
ROANE COUNTY, TENNESSEE., *et al*.,	)	
Defendants.	)	

MEMORANDUM OF LAW IN CONNECTION WITH PLAINTIFF'S MOTION FOR A *DAUBERT* HEARING REGARDING EXCITED DELIRIUM AND TO EXCLUDE TESTIMONY AND OTHER EVIDENCE ABOUT IT

This motion seeks primarily a hearing concerning any testimony by Dr. Robert Cogswell who performed the autopsy of Dustin Barnwell. The autopsy indicates that his testimony will be unable to conform to the standards of *Daubert v. Merrell Dow Pharmaceuticals, Inc.,* 509 U.S. 579 (1993). The cause of death is based on a medical theory – excited delirium – that does not adhere to reliable principles and methods. Even if the theory is accepted, Dr. Cogswell will be unable to apply the principles and methods reliably to the facts of this case.

As an alternative, the Plaintiff requests that the motion be treated as a motion in limine because it seeks to impose limits upon use of the autopsy (which listed excited delirium as the principal cause of death) and also upon any testimony by Dr. Cogswell about excited delirium because he lacked sufficient evidence in reaching that conclusion.

The autopsy of Dr. Cogswell is attached to the motion as Exhibits 1 and 2; then for comparison purposes, an affidavit from Dr. Steven Perlaky is affixed as Exhibits 3 and 4.

Applicable Law

Daubert Motions. According to *Daubert v. Merrell Dow Pharmaceuticals, Inc.,* 509 U.S. 579 (1993), a district court's task in assessing evidence under Federal Rule of Evidence 702[1] is to determine whether the evidence "both rests on a reliable foundation and is relevant to the task at hand." *Id.* at 597. It must consider "whether the reasoning or methodology underlying the testimony is scientifically valid." *Id.* at 592–93. It must act as a gatekeeper, admitting only expert testimony that is relevant and reliable. *Id.* at 589.

The Supreme Court set forth a number of factors for a district court to consider in evaluating scientific evidence. *Id.* at 593. These include whether the theory or technique in question "can be (and has been) tested," whether it "has been subjected to peer review and publication," whether it has a "known potential rate of error," and finally and perhaps most relevant of all, whether the theory or technique enjoys general acceptance in the relevant scientific community. *Id.* at 594. The inquiry is "a flexible one," and "[t]he focus ... must be solely on principles and methodology, not on the conclusions they generate." *Id.* at 594–95.

Although *Daubert* dealt with the admissibility of scientific expert opinions, the trial court's gatekeeping function applies to all expert testimony, including that based on specialized or technical, as opposed to scientific, knowledge. *Kumho Tire Co. v. Carmichael,* 526 U.S. 137, 147–48 (1999). The objective "is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Id.* at 152.

[1] Rule 702 states: If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

The party proffering the expert testimony – in this case, all seven of the Defendants -- bears the burden of showing its admissibility by a preponderance of the evidence. *Daubert* at 592 n. 10.

In performing its analysis the trial court examines "not the qualifications of a witness in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question...." *Berry v. City of Detroit,* 25 F.3d 1342, 1351 (6th Cir.1994). To illustrate, it may exclude expert testimony based on epidemiological studies where the studies are insufficient, whether considered individually or collectively, to support the expert's causation opinion. *General Elect. Co. v. Joiner,* 522 U.S. 136, 146–47 (1997). The Supreme Court reasoned in *Joiner* that:

> [C]onclusions and methodology are not entirely distinct from one another. Trained experts commonly extrapolate from existing data. But nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.

Id. at 146.

The trial judge enjoys broad discretion in determining whether the factors listed in *Daubert* reasonably measure reliability in a given case. *Kumho* at 153. However, his or her conclusions are entitled to the deference under the abuse-of-discretion standard of review "only if the district court properly understood the pertinent law." *United States v. 2903 Bent Oak Highway,* 204 F.3d 658, 665 (6th Cir.2000).

Motions in Limine. If the court permits the use of testimony by Dr. Cogswell as either a fact or an expert witness, the Plaintiff asks that: (1) references to excited delirium in the autopsy be excised and (2) testimony about excited delirium by Dr. Cogswell not be permitted. Courts sometimes say that determination of the propriety of an objection should be made at trial instead of a motion in limine, one court saying that:

> The court has the power to exclude evidence in limine only when evidence is clearly inadmissible on all potential grounds.... Unless evidence meets this high standard, evidentiary rulings should be deferred until trial so that questions of

> foundation, relevancy and potential prejudice may be resolved in proper context....
> *Ind. Ins. Co. v. GE,* 326 F.Supp.2d 844, 846 (N.D.Ohio 2004) (Katz, J.).

Nevertheless, "whether a motion in limine is granted or overruled is a matter left to the sound discretion of the trial court...." *Corporate Commun. Servs. of Dayton, LLC v. MCI Communs. Servs.,* 2009 WL 4680507, *2 (S.D.Ohio 2009).

The Need for a Hearing. It seems possible that the Court's discretion can be exercised appropriately by ruling now without a hearing on what Dr. Cogswell may testify at trial. We already know what his view is about the cause of death. But a hearing would give greater comfort to the parties and the Court on what is a critical matter in this case, one that could generate extensive argument at trial and confuse a jury if the Court does not now set limits on the testimony.

Excited Delirium

Excited delirium has *not* been recognized as a genuine mental health condition by the American Medical Association or the American Psychological Association. It is *not* found in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IVTR)* or the World Health Organization's International Classification of Diseases (ICD-10).[2] It has been recognized only by the National Association of Medical Examiners and the American College of Emergency Physicians.

As the attached letter (Ex. 5) to the editor of *Emergency Medicine Journal,* March 2014, Vol. 31, No. 3, indicates, "Until more data are available and a physiologic explanation found, caution should be exercised when considering [excited delirium] as a 'cause of death.' " This would be a wise course for courts as well.

Caution is already apparent in Canada. The results of a two-year official 2009 inquiry constituting 556 pages (Ex. 6) chaired by a retired British Columbia appeals court justice, Thomas Braidwood, concluded that the term *excited delirium* had been rejected by medical professionals and was

[2] www.who.int/classifications/icd/en.w

being used to cover up actual causes of deaths in custody, especially those involving excessive restraint and Tasers. *See* pp. 204, 205, 262, and 263. Braidwood also wrote on p. 15 that "it is not helpful to blame resulting deaths on 'excited delirium' since this conveniently avoids having to examine the underlying medical condition or conditions that actually caused death . . . ."

In Nova Scotia in 2010, a provincial court judge, Anne S. Herrick, released a report of more than 462 pages regarding the death of Howard Hyde. (Ex. 7) In it, she differed with a medical examiner and concluded among other things, on pp. 197-8, that:

> As I find that Mr. Hyde was not in a state of excited delirium either when he collapsed in HRPS Booking or when he died, excited delirium, *if it exists at all,* is irrelevant in this case, a red herring.… I find "the approximate cause" [of death] is not excited delirium. As I have explained, it is my considered opinion that Mr. Hyde's condition, presentation, and behavior did not conform to what has been described as "excited delirium." (emphasis added)

Then on pp. 210 and 212 she observed that:

> I have concluded that Mr. Hyde's case illustrates the risks associated with readily "seeing" excited delirium when a person presents in a state of great agitation. Likewise, identifying excited delirium as the cause of death is riddled with issues. . . . The potential for resorting to excited delirium as the cause of death for any agitated person who dies in custody was described to this Inquiry as "worrisome." . . . The use of excited delirium to explain sudden deaths with no anatomic findings implies that the person had something wrong with them that caused their inexplicable death. Manner of death may then be classified as "natural" rather than "accidental." I take the same view as Dr. Butt on this issue and do not accept that this would have been appropriate in Mr. Hyde's case or similar cases.

There appear to be few American judicial decisions considering whether testimony about excited delirium passes a *Daubert* analysis. Most of them involve the use of Tasers, or the significant presence in the decedent of cocaine or methamphetamine, neither of which is true here. Others do not involve a *Daubert* analysis at all. For example, in *Lee v. Metropolitan Government of Nashville*, 2009 WL 2462209, *13 (M.D.Tn. 2009), the challenge in a motion for new trial was to the testimony of a medical examiner who concluded that death was caused by excited delirium. The challenge was unsuccessful but was not to the doctrine itself, as is true in this case.

Petro v. Town of West Warwick ex rel. Moore, 889 F.Supp.2d 292, 316-18 (D.C.R.I. 2012) was a bench trial and involves a comprehensive analysis. The plaintiff contended that the cause of death was sudden cardiac arrest due to primary cardiac disease, rather than excited delirium as claimed by the defendants. The Court concluded that excited delirium was not the cause of death, saying:

> Dr. Wetli testified that excited delirium syndrome can arise instantly in response to police involvement and that it did so in this case. However, all of the published literature admitted into evidence at trial, including several articles Dr. Wetli authored or co-authored, involved cases where the agitated behavior preceded police involvement. The Court rejects Dr. Wetli's testimony that excited delirium syndrome arose instantly in the circumstances of this case, or that Jackson's behavior during the altercation with police tends to prove he had excited delirium syndrome.
>
> Dr. Wetli further testified that death by excited delirium syndrome does not create any findings discernible upon autopsy. Instead, the pathological diagnosis is based primarily upon accounts of the decedent's behavior. Dr. Gillespie testified that excited delirium syndrome as a cause of death can only be used as a diagnosis of exclusion, meaning that it can only be made if there are no positive signs at autopsy of conditions sufficient to cause death independent of excited delirium syndrome. An excerpt from a treatise by Vincent DiMaio, M.D., on excited delirium syndrome also expresses this opinion, and Dr. Wetli agreed that Dr. DiMaio is an expert on this subject. If this opinion is correct, then it is highly likely that Jackson's cause of death was sudden cardiac arrest from primary cardiac disease, and excited delirium syndrome should be ruled out as the cause of death, because the autopsy was positive for sudden cardiac arrest due to primary cardiac disease.
>
> Dr. Wetli testified to the contrary, however, stating that he disagreed "100%" with the contention that excited delirium syndrome is a diagnosis of exclusion. He claimed never to have used the term "diagnosis of exclusion." However, during cross-examination, Dr. Wetli admitted that on several occasions in other cases in which he testified in defense of police officers, he testified that the diagnosis of death by excited delirium syndrome requires a negative autopsy. In these cases, he testified that a negative autopsy was one of the diagnostic criteria for diagnosing excited delirium syndrome as a cause of death. The Court rejects Dr. Wetli's testimony that excited delirium syndrome is not a diagnosis of exclusion and concludes that it is a diagnosis of exclusion; here, death from sudden cardiac arrest due to primary cardiac disease has not been excluded, and therefore, the diagnostic criteria for excited delirium are not present. (citations omitted)

Due to the dearth of scrutiny about whether and when excited delirium is a cause of death, or should be recognized as a medical condition, this appears to be a suitable case for a new comprehensive determination that could have a significant impact in other cases.

The Autopsy

The autopsy raises many questions that should be examined at a *Daubert* hearing, the trial, or both, leading one to conclude that other causes of death cannot be excluded. Thus, as *Petro* teaches, excited delirium should not be used as a cause of death even if one should believe (as would be mistaken) that excited delirium is a *Daubert*-acceptable doctrine.

Dr. Cogswell's analysis states that cyclobenzaprine (Flexaril) was present in a "toxic concentration (210 ng/ml)." He says that "serotonin syndrome has been associated with this class of drugs, as well as with Excited Delerium Syndrome." Thus, the circumstances of death are indicative of Excited Delirium Syndrome associated with Cyclobenzaprine overdose. The decedent's underlying heart disease contributed to his death." The Plaintiff will offer testimony that a typical 10 mg dose of Flexaril would result in a serum level of 256 ng/ml, which is not a toxic concentration.

Dr. Cogswell finds that other drugs present were acetaminophen, atropine, caffeine, cotinine (nicotine metabolite), etomidate, nicotine, and theobromine. There is no mention of cocaine or methamphetamine which are more typically associated with excited delirium.

Other findings in the autopsy are supportive of another, unmentioned contributing factor to the death – that the EMS put the ET tube down his esophagus: "The stomach contains approximately 250 milliliters of brown fluid without food, medications or odor of alcohol." This supports the esophageal intubation theory, which the Plaintiff believes to be the case. If the ET tube was placed in Mr. Barnwell, as testimony at trial will show, the source of the brown turbid fluid had to be lungs or stomach. The autopsy revealed no brown fluid in the lungs. This autopsy finding supports the stomach as the source.

Speaking of Mr. Barnwell's heart, the autopsy says: "Sections of the myocardium reveal myocyte hypertrophy, increased perimysial and perivascular interstitial connective tissue, and fibromuscular thickening of intramyocardial small arteries with luminal narrowing. There is no myxoid change in the area of the atrioventricular node. The right ventricle has mild fatty infiltration with no evidence of ventricular dysplasia. There are no acute ischemic changes of recent myocardial infarction". Also, "Hypertrophic cardiomegally, 470 grams." None of this supports the conclusion that heart disease was a contributing cause of death. He had no flow-limiting blockages. He did not suffer a heart attack. He *did* suffer cardiac arrest, likely secondary to hypoxia from a failed intubation.

Turning to Flexaril, the sheet provided by the coroner for cyclobenzaprine indicate the most common side effects of overdose are drowsiness and tachycardia. Rare but potentially critical complications are cardiac arrest, cardiac dysrhythmias, severe hypotension, seizures and neuroleptic malignant syndrome. Life-threatening overdose is rare, however, and the median lethal dose is approximately 338 mg/kg in mice and 425 mg/kg in rats. Assuming Mr. Barnwell weighed 91 kg (200 lbs.), he would need to have ingested 338mg/kg x 91kg, or 30,758 mg. At 10 mg each, this would amount to 3,076 pills.

In conclusion, these points (especially when compared with the affidavit of Dr. Steven Perlaky, Exs. 3 and 4) are sufficient to conclude that a hearing is appropriate and, ultimately, that excited delirium was not the cause of death and that testimony about it by Dr. Cogswell must, as *Petro* demonstrates, be excluded whether this is considered as a *Daubert* motion, a motion in limine, or both.

Respectfully submitted,

Dated: December 18, 2015

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CERTIFICATE OF SERVICE

We certify that on December 19, 2015 we filed this document with the Clerk of the Court, using its electronic filing system, which will send notification of the filing to all registered users of the system involved in this case. We attempted to do so without success yesterday. We are also sending this document by email to counsel for all Defendants.

/s/*John M. Wolfe, Jr.*
John M. Wolfe, Jr.

/s/Whitney Durand
Whitney Durand